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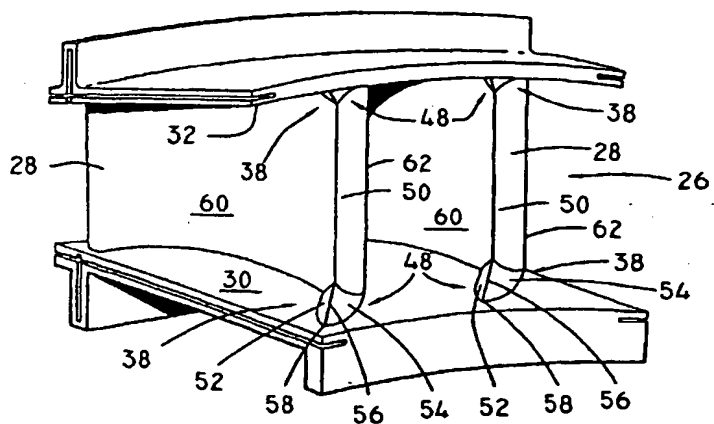
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(54) Apparatus and method for stabilizing the core gas flow in a gas turbine engine

(57) A method for inhibiting radial transfer of core gas flow away from a center radial region and toward the inner and outer radial boundaries of a core gas flow path within a gas turbine engine is provided that includes the steps of: providing a flow directing structure that includes an airfoil 28 that abuts a wall surface 30, 32, said airfoil having a leading edge 50, a pressure side 52, and a suction side 54; and increasing the velocity of the core

gas flow in the area where the leading edge of the airfoil abuts the wall. Increasing the velocity of the core gas flow in the area where the leading edge 50 of the airfoil 28 abuts the wall 30, 32 impedes the formation of a pressure gradient along the surface of the airfoil that forces core gas from the center region of the core gas toward the wall. The method can be achieved by use of a fillet 48 which diverts the core gas flow away from the area where the airfoil 28 abuts the wall 30, 32.

FIG.2





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EUROPEAN SEARCH REPORT

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Place of search MUNICH		Date of completion of the search 29 April 2003	Examiner Chatziapostolou, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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